WHAT IS CLAIMED IS:

1. A process for forming a remanent deposit on keratin materials comprising applying to the keratin materials at least one compound of formula (I)

$$\begin{bmatrix} (R')_{p'} - NH - (CH_2)_n - CH - C \\ NH \\ | (R)_p \end{bmatrix} m$$
 (I)

wherein:

n is 3 or 4,

P is different from P', and P and P' are 0 or 1,

wherein

when P' is 0, then the adjacent -NH group is engaged in an N- ϵ polymerization, when P is 0, then the adjacent -NH group is engaged in an N- α polymerization; when P or P' is 1, then R or R' are chosen from A-SH, wherein

A is at least one entity chosen from saturated and unsaturated, linear and branched C-1 to C-30 hydrocarbon-based chains optionally interrupted with at least one entity chosen from hetero atoms and functional groups and from aromatic and non-aromatic 5-, 6- and 7-membered rings optionally substituted with at least one group chosen from -COOH, -OH, -NH₂, alkyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)aminocarbonyl groups;

wherein R or R' is also chosen from, in part:

hydrogen,
$$\begin{array}{c} NH \\ \parallel \\ -C-NH_2 \end{array}$$
 and the salts thereof, and

- A may also be chosen from 5-, 6- and 7-membered aromatic and non-aromatic rings, optionally substituted with at least one group chosen from -COOH, -OH, -NH₂, alkyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)oxy, alkyl(C-1 to C-8)oxycarbonylamino, alkyl(C-1 to C-8)aminocarbonyloxy, halo, and alkyl(C-1 to C-8)aminocarbonyl groups; and
- m ranges from 3 to 10,000.
- 2. The process according to claim 1, wherein said hetero atoms and functional groups are chosen from NR₁, O, S, S=O, O=S=O, Si, and C=O, wherein R₁ is chosen from hydrogen, alkyl(C-1 to C-8), acyl(C-1 to C-8), alkyl(C-1 to C-8)oxycarbonyl, alkyl(C-1 to C-8)aminocarbonyl, and halo radicals.
- 3. The process according to claim 1, wherein m is greater than 5 and less than 1,000.
- 4. The process according to claim 1, wherein the at least one compound comprises a degree of grafting of thiol function of greater than or equal to 1%.
- 5. The process according to claim 1, wherein the at least one compound further comprises at least one conventional cosmetic active agent.

- 6. The process according to claim 5, wherein the at least one conventional cosmetic active agent is chosen from conventional anionic cosmetic active agents.
- 7. The process according to claim 6, wherein the at least one conventional anionic cosmetic active agent is chosen from dyes, conditioners, moisturizers, emollients, and sunscreens.
- 8. The process according to claim 1, wherein the keratin materials are chosen from skin, nails, and keratin fibers.
 - 9. A compound of formula (II)

$$\begin{bmatrix} (R')_{p'} - NH - (CH_2)_n - CH - C \\ | \\ NH \\ | \\ | (R)_p \end{bmatrix}_m$$
 (II)

wherein:

n is 3 or 4,

P is different from P', and P and P' are 0 or 1,

wherein

- when P' is 0, then the adjacent -NH group is engaged in an N-ε polymerization and
- when P is 0, then the adjacent -NH group is engaged in an N- α polymerization; and
- when P or P' is 1, then R or R' is A'-SH, wherein

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$$-C \xrightarrow{R_2} \xrightarrow{R_4} SH$$

A' is chosen from compounds of formula:

wherein R₁, R₂, R₃, and R₄, which may be identical or different, are chosen from hydrogen, and -COOH, -OH, -NH₂, alkyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)oxy, alkyl(C-1 to C-8)oxycarbonylamino, alkyl(C-1 to C-8)aminocarbonyloxy, halo, and alkyl(C-1 to C-8)aminocarbonyl radicals; wherein q ranges from 1 to 36;

wherein R or R' may also be chosen from

- m ranges from 3 to 10,000.
- 10. The compound according to claim 9, wherein the degree of grafting of thiol function is greater than or equal to 1%.
 - 11. The compound according to claim 9, wherein q ranges from 3 to 28.
 - 12. The compound according to claim 11, wherein q ranges from 5 to 26.
- 13. A cosmetic composition comprising, in a cosmetically acceptable medium, at least one compound of formula (II)

$$\begin{bmatrix} (R')_p - NH - (CH_2)_n - CH - C \\ NH \\ | (R)_p \end{bmatrix} m$$

$$(II)$$

n is 3 or 4,

P is different from P', and P and P' are 0 or 1,

wherein

- when P' is 0, then the adjacent -NH group is engaged in an N-ε polymerization and
- when P is 0, then the adjacent -NH group is engaged in an N-α polymerization; and
- when P or P' is 1, then R or R' is A'-SH, wherein
- A' is chosen from

$$\begin{array}{c|c}
O & R_2 & R_4 \\
\hline
C & R_1 & R_3
\end{array}$$
SH

R₁, R₂, R₃, and R₄, which may be identical or different, are chosen from hydrogen, and -COOH, -OH, -NH₂, alkyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)oxy, alkyl(C-1 to C-8)oxycarbonylamino, alkyl(C-1 to C-8)aminocarbonyloxy, halo, and alkyl(C-1 to C-8)aminocarbonyl radicals;

wherein q ranges from 1 to 36;

wherein R or R' may also be chosen from

and salts thereof; and

- m ranges from 3 to 10,000.
- 14. The composition according to claim 13, wherein the at least one compound of formula (II) is present in the composition in an amount ranging from 0.05% to 30% by weight, relative to the total weight of the composition.
- 15. The composition according to claim 14, wherein the at least one compound of formula (II) is present in the composition in an amount ranging from 0.1% to 15% by weight, relative to the total weight of the composition.
- 16. The composition according to claim 15, wherein at least one compound of formula (II) is present in the composition in an amount ranging from 0.25% to 10% by weight, relative to the total weight of the composition.
- 17. The composition according to claim 13, wherein the cosmetically acceptable medium is chosen from water and at least one cosmetically acceptable solvent.
- 18. The composition according to claim 17, wherein the at least one cosmetically acceptable solvent is chosen from alcohols, ketones, cyclic volatile silicones, and water-solvent mixtures.
 - 19. The composition according to claim 18, wherein the at least one cosmetically

acceptable solvent is chosen from C-1 to C-4 alcohols.

- 20. The composition according to claim 13, wherein the composition is housed in an aerosol device.
- 21. The composition according to claim 20, wherein the composition further comprises at least one propellant.
- 22. The composition according to claim 21, wherein the at least one propellant may be chosen from volatile hydrocarbons, carbon dioxide, nitrous oxide, dimethyl ether, nitrogen, and compressed air.
- 23. The composition according to claim 22, wherein the at least one propellant is present in an amount ranging from 5% to 90% by weight, relative to the total weight of the composition.
 - 24. The composition according to claim 13, wherein q ranges from 3 to 28.
 - 25. The composition according to claim 24, wherein q ranges from 5 to 26.
 - 26. A process for preparing at least one compound of formula (II)

$$\begin{bmatrix} (R')_p, & -NH - (CH_2)_n - CH - C \\ NH \\ | (R)_p \end{bmatrix} m$$
 (II)

wherein

n is 3 or 4,

P is different from P', and P and P' are 0 or 1, wherein,

when P' is 0, then the adjacent -NH group is engaged in an N- ϵ polymerization; when P is 0, then the adjacent -NH group is engaged in an N- α polymerization; and when P or P' is 1, then R or R' is A'-SH, wherein

$$\begin{array}{c|c}
O & R_2 & R_4 \\
\hline
C & Q & SH
\end{array}$$

$$\begin{array}{c|c}
R_1 & R_3 & R_4
\end{array}$$

A' is chosen from compounds of formula:

• wherein R₁, R₂, R₃, and R₄, which may be identical or different, are chosen from hydrogen, and -COOH, -OH, -NH₂, alkyl(C-1 to C-8)amino, acyl(C-1 to C-8)amino, acyl(C-1 to C-8)oxy, alkyl(C-1 to C-8)oxycarbonylamino, alkyl(C-1 to C-8)aminocarbonyloxy, halo, and alkyl(C-1 to C-8)aminocarbonyl radicals; q ranges from 1 to 36; wherein R or R' may also be chosen from

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• m ranges from 3 to 10,000,

comprising reacting, under an inert atmosphere, of poly-N- ϵ -lysine or poly-N- ϵ -lysine containing a guanidine or biguanide function with a thiolactone.

- 27. The process according to claim 26, wherein the thiolactone is chosen from N-acetylhomocysteinethiolactone.
 - 28. The process according to claim 26, wherein q ranges from 3 to 28.
 - 29. The process according to claim 28, wherein g ranges from 5 to 26.